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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/058,550	01/28/2002	Zhaoyun Xing	004-5620	3758

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EXAMINER

DINH, PAUL

ART UNIT PAPER NUMBER

2825

DATE MAILED: 11/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/058,550

Applicant(s)

XING ET AL.

Examiner

Paul Dinh

Art Unit

2825

MW

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☒ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

This is a response to the amendment/remarks filed on 10/2/03. The previous rejections have been withdrawn; however, new ground of rejections has been cited in this office action in view of the newly discovered prior art.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter that the applicant regards as his invention.

Claims 1-29 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, and similarly recited claims 15-16, 24 are rejected because:

- a. If "the plurality of layers" and "other (routing/circuit) layer(s)" are different features that the applicant relies upon; then the different features must be clearly defined in claim 1, and similarly recited claims 15-16, 24. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims.
- b. Claim 1, and similarly recited claims 15-16, 24, must clearly define in these claims how "subgraphs (correspond to layers of circuitry) including a plurality of segments based on information from other layers of circuitry". First, claims do not details invention but claims must define the invention. Second, although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims.

The rest of the claims are rejected because they depend from claims 1, 15-15, and 24.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) The invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-2, 14-17, 23-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Carothers et al. (USP 6353918) who discloses a method/product/graph comprising:
(Claim 1 and similarly recited claims 15-16, 24)
generating a plurality of subgraphs, wherein individual ones of the plurality of subgraphs correspond to respective ones of a plurality of layers of circuitry (fig 16, 24, 35, 37), respective ones of the plurality of subgraphs including a plurality of segments based on information from other (routing/circuit) layer(s) of the circuitry (fig 5, 17-36, col 15-16); and
combining all of the plurality of subgraphs into a single multi layer graph (fig 1, 17-26, 33-35, col 1, 4).
(Claims 2, 17, 26) intersection points of all the segments from other layers (fig 12-35)
(Claim 14) IC made is just an intended used. Just for the applicant information, background, fig 1 teach IC made/designed.
(Claims 23, 25) program/software/storage/medium/disk/tape/computer readable and internet/network in claims 23, 25 are jus intended uses and/or inherent apparatus in a computer/workstation/CAD/ECAD/EDA/design/layout system/platform. Just for the applicant information, fig 31 substantially teaches this intended use.

2. Claim 1 and similarly recited claims 15-16, 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamaguchi et al (USP 6292928) who discloses a method/product/graph comprising:
generating a plurality of subgraphs, wherein individual ones of the plurality of subgraphs correspond to respective ones of a plurality of layers of circuitry (fig 2, 4, 6), respective ones of the plurality of subgraphs including a plurality of segments based on information from other (routing/circuit) layer(s) of the circuitry (fig 2, 4, 6, col 3, 5, 7); and
combining all of the plurality of subgraphs into a single multi layer graph (fig 2, 4, 6, summary).

Allowable Subject Matter

Claims 3-13, 18-22, 27-29 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claims 3-13, 18-22, 27-29 would be allowable because the prior art does not teach or suggest the limitation in claim 3, lines 3-12 and similarly recited claim 18, lines 3-14, claim 27 lines 3-12

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Dinh whose telephone number is (703) 305-5662. The examiner can normally be reached on Monday to Friday from 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew S. Smith can be reached on (703) 308-1323. The fax number for the organization handling this application is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

Paul Dinh

Patent Examiner

A handwritten signature in black ink, appearing to read 'M. S. Smith', is positioned above the printed name and title.

MATTHEW SMITH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800